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# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF ENVIRONMENTAL QUALITY

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Thomas L. Hopkins  
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March 6, 1997

Commander  
Atlantic Division  
Naval Facilities Engineering Command  
1510 Gilbert Street  
Attn Mr. Randy Jackson, CODE 1822  
Norfolk, Va. 23511-2699

RE: Draft RI/FS Work Plan for USN St. Julian Creek Annex, Va.  
Sites 2,3,4, and 5.

Dear Mr. Jackson:

Thank you for providing the Department of Environmental Quality, Waste Division, the opportunity to comment on the above referenced documents.

Attached are our comments concerning these sites. If you have any questions, please contact me at (804) 698-4226.

Sincerely,

A handwritten signature in cursive script that reads "Devlin Harris".

Devlin M. Harris  
Environmental Engineer Sr.  
Federal Facilities Program

cc: Mr. Rob Thomson, USEPA  
Durwood Willis, VDEQ Waste Division

## GENERAL COMMENTS

1. The RI/FS Work Plan does not address wetland delineation. Will wetland boundaries be surveyed? DEQ recommends that wetland boundaries be delineated to help in the ecological characterization of the sites.
2. Sampling locations designated as "background" locations should be designated as upgradient or downgradient.
3. DEQ recommends that surface water samples be analyzed for hardness, alkalinity, BOD, COD, total suspended solids, and total dissolved solids. Sediment samples should be analyzed for ph, Eh, temperature, and conductivity.
4. DEQ's review of the historic aerial photography of St. Julians depicts many of the site boundaries to be larger than they appear on the report figures. It is recommended that you review the aerial photography and expand/change the boundaries of the appropriate sites and adjust the sampling plan accordingly. (See EPA Aerial Photographic Site Analysis Norfolk Naval Shipyard: Annex Areas Norfolk, Va. 1995)
5. DEQ recommends adding dioxin and phosphorus to the sampling analysis list. This is recommended due to the fact that St. Julians handled, burned and disposed of large amounts of pyrotechnics.
6. Page 4-17- Sample Analysis and Data Validation- This section states that appropriate field duplicate samples will be taken at a frequency of 1 per 10 field samples and the location of the duplicate sample will be randomly selected. DEQ recommends that duplicate samples be taken in "hot" spots or areas suspected of containing contamination. Additionally, the matrix Spike/Matrix Spike Duplicate (MS/MSD) samples should be taken in areas of low or unsuspected contamination. The rationale for this that duplicate samples are a QA/QC check. If a "hot" spot or area of high contamination is detected, the duplicate sample will confirm/deny the results. Subsequently, the MS/MSD sample is already spiked with a Known aliquot, and is used solely to calibrate the laboratory equipment and set detection limits.

#### SITE SPECIFIC COMMENTS

1. Page 1-Landfill B: Historic photography depicts landfill B as being larger than the report figures. (See General Comment 4) This area also shows that the area was labeled "HI-X", which is indicative of storage/waste disposal activity. Sampling activity in this area should be adjusted to account for this information.
2. Page 1- Burning Grounds: A review of the aerial photography for St, Julians reveals evidence that there are more than one burning ground/EOD range. (See 1937 photography) Experience also says that a facility with such a diverse history as St, Julians would have more than one burning ground/EOD range. DEQ believes that these burning grounds should also be included in the investigation.
3. Page 4-18 and 4-19- Risk Assessment- This section states that the future use of the site is expected to remain industrial. Please explain how this determination was reached? DEQ recommends that a residential as well as an industrial scenario be utilized in the risk assessment. This information will also be useful in the Feasibility Study.
4. DEQ recommends that the Baseline Ecological Risk Assessment (BERA) set criteria for the selection of ecological receptors, and include the habitat preferences of investigated species. Additionally, please explain if the ecological receptors.

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4. DEQ recommends that the Baseline Ecological Risk Assessment (BERA) set criteria for the selection of ecological receptors, and include the habitat preferences of investigated species. Additionally, please explain if the ecological receptors will be assessed in a qualitative or quantitative manner.

This concludes DEQ's review of the Draft Remedial Investigation Work Plan, for St. Julians Annex.